



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/804,072 | 03/19/2004 | Itaru Fukushima | K-2010DIV2 | 7053 |

7590 02/10/2005

HAUPTMAN KANESAKA BERNER PATENT AGENTS
1700 DIAGONAL ROAD
SUITE 310
ALEXANDRIA, VA 22314

| |
|----------|
| EXAMINER |
|----------|

FERGUSON, MARISSA L

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2854

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Ak

Office Action Summary

Application No.

10/804,072

Applicant(s)

FUKUSHIMA ET AL.

Examiner

Marissa L. Ferguson

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>See Continuation Sheet</u> . |

Continuation of Attachment(s) 6). Other: Figure 3 of US Patent 5,596,389.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuzawa (US Patent 6,243,157) in view of Dumas et al. (US Patent 5,596,389).

Regarding claim 1, Tsuzawa teaches an exposing section (52) for exposing the recording medium, first feed means (32,38,68A, 69) arranged in the exposing section for feeding the recording medium (54) while contacting two side edges of the recording medium feed direction of the recording medium (Figure 1), a developing section (located in processor section 72) for pressing the recording medium exposed at the exposing section for development, a recording medium feed path (68B, 68C, 73) arranged between the exposing section and the developing section for feeding the recording medium, a cutting device (71,88) for cutting four edges of the recording medium including the two side edges and an apparatus housing (12) for retaining at least the exposing section, developing section, cutting device and the first feed means.

However, he does not explicitly disclose a second feed means arranged in the recording medium feed path for feeding the recording medium exposed at the exposing section to the developing section while contacting the two side edges of the recording medium and a third feed means arranged between the developing section the cutting

device feeding the recording medium developed at the developing section to the cutting device while contacting two side edges the recording medium and casing for housing a second and third feed means therein.

Dumas et al. teaches a printing system that discloses a second feed means (refer to figure 3 on the last page of the office action) arranged near the exposure section (94) and feeds the recording medium to the exposure section and development section (104) while contacting edges of the recording and a third feed means (234 and Figure 11) located between the developing (104) and cutter sections (190).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention taught by Tsuzawa to include the second and third feed means as taught by Dumas et al., since Dumas et al. teaches that it is advantageous to efficiently deliver sheets and provide image quality.

Regarding claim 2, Tsuzawa teaches a path including a recording medium feed path from the exposing section to the cutting device (71) that includes a least one curved portion (Figure 4) and wherein the cutting device is arranged at, at least one curved portion (curve located near blade 71).

Regarding claim 3, Tsuzawa teaches a cutting device (88) arranged at an upper corner of the apparatus housing (Figure 1).

Regarding claim 4, Tsuzawa teaches a developing section (located in section 72) that includes a curved feed path for guiding the recording medium to the cutting device, wherein curved feed path is connected to the curved portion of the recording medium feed path so that the recording medium feed path is formed in a S-shape (Figure 1).

2. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuzawa (US Patent 6,243,157) in view of Dumas et al. (US Patent 5,596,389) as applied to claims 1-4 above, and further in view of Sato et al. (US Patent 5,229,827).

Tsuzawa teaches the invention claimed including a vertical cutting device having a blade capable of moving vertically (71) relative to the recording medium for cutting leading and trailing edges of the recording medium in the feed direction. However, Tsuzawa and Dumas et al. do not explicitly disclose a rotary cutting means having a rotary blade for cutting the two side edges of the recording medium in the feed direction while rotating and pressing. Sato et al. teaches a rotary cutting means (19,20 and 91) with a rotating shaft (713) for cutting a medium.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to further modify the invention taught by Tsuzawa to include a rotary blade as taught by Sato et al., since Sato et al. teaches that it is advantageous to provide a rotary blade for cutting off hard to reach margins such as opposite longitudinal margins of the recording medium.

Allowable Subject Matter

3. Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance: Regarding claim 7, the prior art does not teach or render obvious a printer comprising a containing section arranged below the cutting device for containing the four edges of the recording medium cut by the cutting device so that the two side edges of the recording medium cut by the rotary cutting means drop in the containing section in a curved path along parts of the surface of the feed roller, and the leading and trailing end edges of the recording medium cut by the vertically cutting means drop in the containing section vertically.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa L Ferguson whose telephone number is (571) 272-2163. The examiner can normally be reached on (M-T) 6:30am-4:00pm and every other(F) 7:30am-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marissa L Ferguson
Examiner
Art Unit 2854

MFL


ANDREW H. HIRSHFELD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800